JVC

InteríArt

AV-32R47SK
AV-28R47SK

DOLBY
SURROUND
PRO LOGIC II

T-V LINK

COLOUR TELEVISION   INSTRUCTIONS

plain English
appro✓ed
by the word centre

■ Warning

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or adaptor or consult your dealer.

If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If a new mains plug has to be fitted, then follow the instruction given below:

Important

Do not make any connection to the larger terminal which is marked with the letter E or by the safety earth symbol $\perp$ or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:
Blue: Neutral
Brown: Live

As these colours may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
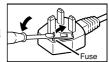
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

When replacing the fuse, use only a correctly rated approved type and always re-fit the fuse cover.

■ If in doubt — consult a competent electrician.

How to replace the fuse
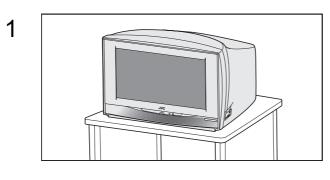Open the fuse compartment with a blade screwdriver, and replace the fuse.

Fuse
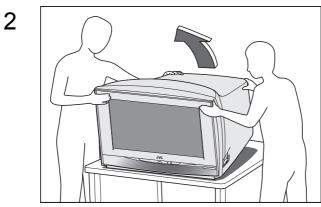

■ Guidelines for safe operation

This equipment has been designed and manufactured to comply with international safety standards. However, as with any electrical appliance, care must be taken to ensure optimal results and operational safety.
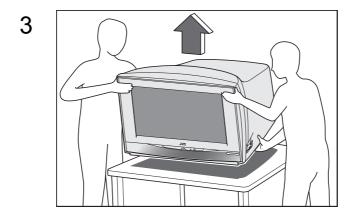
- Before attempting to use this equipment, read the operating instructions thoroughly.
- Ensure that all electrical connections (including the mains plug, extension leads, etc.) have been made in accordance with the manufacturer's instructions.
- If ever in doubt about the installation, operation or safety of this equipment, consult your dealer.
- Handle all glass panels or covers with care.
- Never operate this equipment if it appears damaged or operates abnormally. Turn the power off, disconnect the main power plug and consult your dealer.
- Never remove any affixed panels or covers. Doing so may result in electrical shock.
- Never leave this equipment operating unattended unless otherwise specifically stated that it is designed to do so or in standby mode. Only use the designated power switch to turn off the power and ensure that all potential users are instructed how to do so. Make special arrangements for infirm or handicapped persons.
- Never watch TV while operating a motor vehicle. It is illegal to watch TV while driving.
- Never listen to headphones at high volume. Doing so may damage your hearing.
- Never obstruct the ventilation of this equipment. Doing so may cause overheating and result in a malfunction or damage.
- Never use makeshift stands or attempt to affix legs with wood screws. When using a manufacturer's approved stand or legs, use only the fixtures provided and follow the installation instructions.
- Never allow this equipment to be exposed to rain or moisture.
- Never allow anyone, especially children, to insert anything into an opening in the case. Doing so may result in a fatal electrical shock.
- Never guess or take chances with electrical equipment of any kind. It is better to be safe than sorry.

How to move the TV

When moving the TV, make sure that it is held by two people as shown in the illustration. Be careful not to trap your hands when putting the TV down.

1

2

3

Thank you for buying this JVC colour television.
To make sure you understand how to use your new TV, please read this manual thoroughly before you begin.
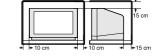
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

• Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.
• Avoid damaging the AC plug and power cord.
• When you are not using this unit for a long period of time, it is recommended that you disconnect the power cord from the main outlet.

• The main power button on the TV does not fully isolate the TV from the mains supply. If you are not going to use this TV for a long period of time, be sure to disconnect the mains plug from the mains outlet.

Avoid improper installation and never put the unit where good ventilation is not possible.
When installing this TV, distance recommendations must be maintained between the set and the wall, as well as inside a tightly enclosed area or piece of furniture.
Adhere to the minimum distance guidelines shown for safe operation.

Failure to heed the following precautions may result in damage to the TV or remote control.

DO NOT block the TV's ventilation openings or holes.
(If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)
DO NOT place anything on top of the TV.
(such as cosmetics or medicines, flower vases, potted plants, cups, etc.)
DO NOT allow objects or liquid into the cabinet openings.
(If water or liquid is allowed to enter this equipment, fire or electric shock may be caused.)
DO NOT place any naked flame sources, such as lighted candles, on the TV.

The surface of the TV screen is easily damaged. Be very careful with it when handling the TV.
Should the TV screen become soiled, wipe it with a soft dry cloth. Never rub it forcefully.
Never use any cleaner or detergent on it.

In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

NOTE:

Due to static electricity, the TV may be covered with dust.
If this happens, wipe the TV with a soft cloth being careful not to scratch the TV.

CONTENTS

Setting up your TV

Caution

• Turn off all the equipment including the TV before connecting anything.
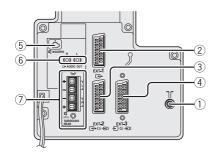
Connecting the aerial and video cassette recorder (VCR)
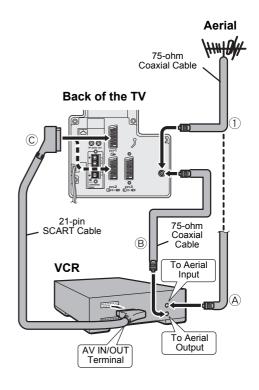
• The connecting cables are not provided.
• For further details, refer to the manuals provided with the devices to be connected.

■ **If you are connecting a VCR, follow Ⓐ → Ⓑ → Ⓒ in the diagram opposite.**

■ **If you are not connecting a VCR, follow ①.**

To use the T-V LINK functions, you must have a T-V LINK compatible VCR connected by a SCART cable Ⓒ to the EXT-2 terminal on the TV. For details about T-V LINK functions, see "T-V LINK functions" on page 10.

• You can watch a video using the VCR without doing Ⓒ. For details, see your VCR instruction manual.
• To connect more equipment, please see "Connecting external equipment" on page 37.
• To connect additional audio equipment, see "Connecting speakers or an amplifier" on page 38.
• If you connect a decoder to a T-V LINK compatible VCR, set the DECODER (EXT-2) function to ON. For details, see "DECODER (EXT-2)" on page 33. Otherwise, you will not be able to watch scrambled channels.

■ **Rear Panel**

Aerial

75-ohm Coaxial Cable

Back of the TV

21-pin SCART Cable

75-ohm Coaxial Cable

VCR

To Aerial Input

To Aerial Output

AV IN/OUT Terminal
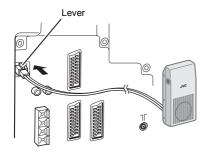
① Aerial socket (page 6)
② EXT-1 terminal (pages 6, 34, 37)
③ EXT-2 terminal (pages 6, 10, 34, 37)
④ EXT-3 terminal (pages 34, 37)
⑤ Woofer terminal (page 7)
⑥ AUDIO OUT terminal (page 38)
⑦ SURROUND REAR terminal (page 39)

Connecting and placing the woofer unit

Connect the supplied woofer connector to the woofer terminal on the back of the TV.
If the woofer unit is not connected, you will not be able to enjoy the bass sound.

• Connect so that the lever is raised.

Lever

• When disconnecting the woofer connector, do so while pushing the lever.

■ Placing the woofer unit
The woofer unit can be used either standing up or lying down.

Standing up
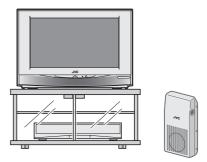
Laying down

• Point the side with the woofer upwards.

Place the woofer unit within the range of the connection cable.
It is recommended that the woofer unit be placed with the speaker facing forwards.

• Do not place the woofer unit on top of the TV.
• When the TV is used on a TV stand or table, do not place the woofer unit underneath the TV.

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Connecting the power cord to the AC outlet
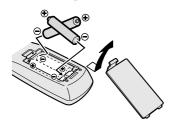
Caution
• Operate only from the power source specified (AC 220 – 240 V, 50 Hz) on the unit.

Putting the batteries into the remote control
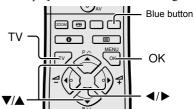
Use two AA/R6 dry cell batteries.
Insert the batteries from the ⊖ end, making sure the ⊕ and ⊖ polarities are correct.

• Follow the warnings printed on the batteries.
• Battery life is about six months to one year, depending on how much you use the remote control.
• The batteries we supply are only for setting up and testing your TV, please replace them as soon as you need to.
• If the remote control does not work properly, replace the batteries.
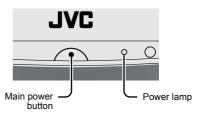
Initial settings

When the TV is first turned on, it goes into the initial settings mode, and you will see the JVC logo. Follow the instructions on the screen display to make the initial settings.

1 Press the main power button on the TV
The power lamp lights red and the JVC logo appears.

• If the JVC logo does not appear this is because your TV has already been turned on for the first time: use the "LANGUAGE" and "AUTO PROGRAM" functions to make the initial settings. For details, see "SET UP menu" on page 29.

2 Press the OK button
The LANGUAGE menu appears.

LANGUAGE

○ **ENGLISH**

D0002-EK

• To receive SKY 1 you need a satellite tuner. You must have the satellite tuner set to SKY 1 before starting the AUTO PROGRAM function which follows.

8

3 Press the OK button to start the AUTO PROGRAM function

The AUTO PROGRAM menu appears and received TV channels are automatically stored in the programme numbers (PR).

```
┌─────────────────────────────────────┐
│ AUTO PROGRAM                         │
│                                      │
│                  CH 24               │
│       10% ▭▭▭▭▭▭▭▭▭▭                 │
│                                      │
│  TV◇◇◇OK                            │
└─────────────────────────────────────┘
```
D0004-EN

• To cancel the AUTO PROGRAM function:
  Press the *TV* button.

➡
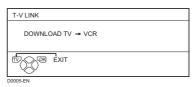
After the TV channels have been registered in the programme numbers (PR), the EDIT menu appears

```
┌─────────────────────────────────────┐
│ EDIT                                 │
│                                      │
│   PR 🔒 ID        CH/CC              │
│   AV   ─────     CH  36              │
│ O  1   BBC1      CH  21      ▶       │
│    2   BBC2      CH  22              │
│    3   ITV       CH  23              │
│    4   CH4       CH  24              │
│    5   CH5       CH  25              │
│    6             CH  26              │
│                                      │
│  TV◇◇◇OK          ID↓      ↓MANUAL  │
│    ◇←MOVE                            │
│                   INSERT↑  ↑DELETE   │
└─────────────────────────────────────┘
```
D0038-EK

• If you want to, you can now edit the programme numbers (PR) using the EDIT/MANUAL function. For details, see "EDIT/MANUAL" on page 29.

• If you do not want to edit programme numbers (PR), go to the next step.
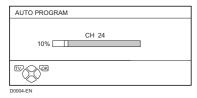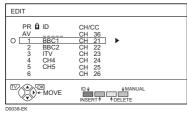
4 Press the OK button to display the T-V LINK menu

```
┌─────────────────────────────────────┐
│ T-V LINK                             │
│                                      │
│    DOWNLOAD TV ➡ VCR                │
│                                      │
│  TV◇◇◇OK  EXIT                      │
└─────────────────────────────────────┘
```
D0005-EN

If you do not have a T-V LINK compatible VCR connected:
Press the *TV* button to exit the T-V LINK menu.
The T-V LINK menu disappears.

If you have a T-V LINK compatible VCR connected to the EXT-2 terminal:
Follow "Downloading the data to VCR" on page 10 to transmit the Programme number (PR) data.

Now, the initial settings are complete, and you can watch the TV

• BBC1, BBC2, ITV, Channel 4 and Channel 5 are automatically set to the programme numbers PR1 to PR5. If the TV doesn't receive one of these TV channels, that programme number (PR) will not be set. Programme number PR6 is not normally set.

• If a TV channel you want to view is not set to a programme number (PR), you can set it using the MANUAL function. For details, see "EDIT/MANUAL" on page 29.

• The AUTO PROGRAM function does not set the programme number PR 0 (AV) for your video cassette recorder. You will need to set this using the MANUAL function.

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• In some areas you may get TV reception from more than one transmitter, for example different ITV regions. In this case each TV channel could be set twice. If this happens, the first set of channels will have the stronger signal. If you want to delete the second set of channels, you will have to do it manually (see page 29).

For users in the UK:
If you have any problems setting up your new TV, please call the **JVC** Helpline on **0870 330 5000**.

■ Downloading the data to VCR

You can transmit to the latest Programme numbers (PR) data to a VCR with the T-V LINK function.

Caution

• This only works when a T-V LINK compatible VCR is connected to the EXT-2 terminal.
• This only works when the T-V LINK menu is being displayed.

```
T-V LINK

    DOWNLOAD TV → VCR

TV    OK   EXIT
```
D0005-EN

1 Turn on the VCR

2 Press the OK button

The data transmission begins.

```
DOWNLOAD   TV → VCR
TRANSFER. . . . .
```
D0037-EN

The T-V LINK menu disappears once the data transmission ends.

When the T-V LINK menu is changed over to another menu:

The TV has finished its menu. This new menu is operated from the VCR. See the VCR instruction manual for what to do next.

If "FEATURE NOT AVAILABLE" appears at the T-V LINK menu:

Check the following three items. Then press the ◄ button to retry data transmission.

• Has a T-V LINK compatible VCR been connected to the EXT-2 terminal?
• Has the VCR power been turned on?
• Does the SCART cable that is connected to the EXT-2 terminal to T-V LINK compatible VCR have all its proper connections?

T-V LINK functions

When you have a T-V LINK compatible VCR connected to the EXT-2 Terminal on the TV, it is easier to set up the VCR and to view videos. T-V LINK uses the following features:

To use T-V LINK functions:

A "T-V LINK compatible VCR" means a JVC video cassette recorder with the T-V LINK logo, or with one of the following logos. However, these VCRs may support some or all of the features described earlier. For details, see your VCR instruction manual.

"Q-LINK" (a trademark of Panasonic Corporation)
"Data Logic" (a trademark of Metz Corporation)
"Easy Link" (a trademark of Phillips Corporation)
"Megalogic" (a trademark of Grundig Corporation)
"SMARTLINK" (a trademark of Sony Corporation).

■ Pre-set download

The VCR will automatically download the registered data on the TV channels from the TV. This means you do not need to set up the program channels on your VCR manually. The preset download function automatically begins when the initial setting is complete or whenever you carry out the AUTO PROGRAM or EDIT/MANUAL functions.

You can also carry out this function using your VCR controls.

When "FEATURE NOT AVAILABLE" is displayed:

If "FEATURE NOT AVAILABLE" is displayed, the download was not performed correctly. Before trying to download again, check that:

• the VCR power is turned on
• the VCR is T-V LINK compatible
• the VCR is connected to the EXT-2 terminal
• the SCART cable is fully wired.

■ Direct Rec

"What You See Is What You Record"

You can easily record to VCR the images that you are watching on the TV.

For details, read the manual for your VCR. Use your VCR controls. "VCR IS RECORDING" is displayed.

In the following situations, the VCR will stop recording if the TV is turned off, if the TV channel or input is changed, or if the menu is displayed on the TV:
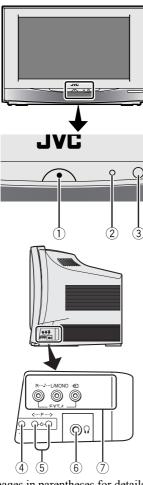
• when recording images from an external device connected to the TV (for example a camcorder)
• when recording a TV channel after it has been unscrambled on a decoder
• when recording a TV channel by using the TV's output because the VCR's own tuner cannot properly receive that channel.

When the VCR is not ready (for example when there is no tape inserted), "NO RECORDING" is displayed.
You cannot carry out Direct Rec using your TV's control.
Generally, the VCR cannot record a TV channel that it cannot receive properly on its own tuner, even if you can view that TV channel on the TV. However, some VCRs can record a TV channel by using the TV's output if that channel can be viewed on the TV. For details, see your VCR instruction manual.

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TV buttons and functions

Turn the main power on

Press the main power button on the TV.
The power lamp lights red and your TV is in standby mode.

To turn the main power off:
Press the main power button again.
The power lamp goes off.

Caution
• The main power button on the TV does not fully isolate the TV from the AC supply. If you are not going to use the TV for a long period, be sure to disconnect the AC plug from the AC socket.

Turn the TV on from standby mode

Press the P ∨/∧ buttons to turn the TV on from standby mode
When the TV is turned on, the power lamp dims slightly.
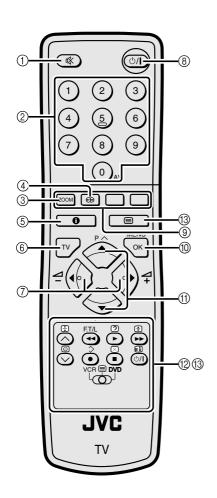
Choose a TV channel

Press the P ∨/∧ buttons to choose a programme number (PR) or an EXT terminal

Adjust the volume

1 **Press the ⊿ (Volume) button**
The volume level indicator appears.

2 **Press the −/+ buttons while the volume level indicator is displayed**

See the pages in parentheses for details.

① Main power button (pages 8, 12)
② Power lamp (pages 8, 12)
③ Remote control sensor
④ ⊿ (Volume) button (page 12)
⑤ P ∨/∧ buttons/ −/+ buttons (page 12)
⑥ Headphone jack (mini jack) (page 37)
⑦ EXT-4 terminal (pages 34, 37)

Remote control buttons and functions

① Muting button
② Number buttons
③ **ZOOM** button
④ ⊛ (surround) button
⑤ Information button
⑥ **TV** button
⑦ ◄/► buttons
⑧ ⏻/I (standby) button
⑨ Colour buttons
⑩ **OK** button
⑪ ▼/▲ buttons
⑫ VCR/DVD/Teletext control button
⑬ VCR ▤ DVD switch ▤ (text) button

Turn the TV on or off from standby mode

Press the ⏻/I (standby) button to turn the TV on or off.
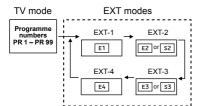When the TV is turned on, the power lamp dims slightly.

• The power can be turned on by pressing the **TV** button, ▼/▲ buttons or number buttons.

Choose a TV channel and watch images from external devices

• If the picture is tilted, correct it. See "PICTURE TILT (Only for AV-32R47SK)" on page 36.

■ **Use the number buttons:**
Enter the programme number (PR) of the channel using the number buttons.
Example:
• PR 6 → press **6**
• PR 12 → press **1** and **2**

■ **Use the ▼/▲ buttons:**
Press the ▼/▲ buttons to choose the programme number (PR) you want or an EXT terminal.

■ **Use the 0 (AV) button:**
Press the 0 (AV) button to choose an EXT terminal.

• You can choose a video input signal from the S-VIDEO signal (Y/C signal) and regular video signal (composite signal). For details, see "S⊝ (S-VIDEO input)" on page 34.
• If you do not have a clear picture or no colour appears, change the colour system manually. See "COLOUR SYSTEM" on page 24.
• If you choose an EXT terminal with no input signal, the EXT terminal number becomes fixed on the screen.
• This TV set has a function which can automatically change over the input according to a special signal output from an external device. (The EXT-4 terminal does not support this function.)
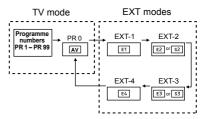
To return to a TV channel:
Press the **TV** button, the ▼/▲ buttons or the number buttons.

To use the programme number PR 0 (AV):
When the TV and VCR are connected only by the aerial cable, choosing the programme number PR 0 (AV) allows you to view images from the VCR. Set the VCR RF channel to the programme number PR 0 (AV) manually. For details, see "EDIT/MANUAL" on page 29.
Pressing the **0 (AV)** button changes the choice as follows:

• The VCR sends its playback image along the aerial cable as an RF (radio frequency) signal.
• Also see your VCR instruction manual.

Adjust the volume

Press the ◄/► buttons to adjust the volume.
The volume indicator appears and the volume changes as you press the ◄/► buttons.

■ **Muting the sound**
Press the ⚞ (muting) button to turn off the sound.
Pressing the ⚞ (muting) button again restores the previous volume level.

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Information function

You can see the current time or the PR LIST. From the PR LIST, you can choose a channel or EXT terminal.

Press the ⓘ (Information) button to display the information you want to see.

Pressing the ⓘ (Information) button changes the display as follows:

D0011-EN

Time display:

The current time of the teletext data is displayed.

If the TV has not received a TV channel that has teletext programmes since it was turned on, the time display is blank. To view the current time, choose a TV channel that has teletext programmes.
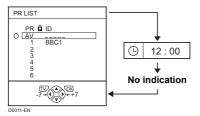
• An incorrect current time is sometimes displayed when watching videos.

PR LIST:

The programme number (PR) and EXT terminal list is displayed.

Pressing the **OK** button after choosing the programme number (PR) or EXT terminal with the ◄/►/▼/▲ buttons will display the chosen programme or EXT terminal.

• For programme numbers (PR) for which the CHILD LOCK function is set, the 🔒 (CHILD LOCK) mark is displayed. For details see "CHILD LOCK" on page 27.

ZOOM function

You can change the screen size according to the picture aspect ratio. Choose the optimum one from the following ZOOM modes.

AUTO:

When a WSS (Wide Screen Signalling) signal, which shows the aspect ratio of the picture, is included in the broadcast signal or the signal from an external device, the TV automatically changes the ZOOM mode to 16:9 ZOOM mode or FULL mode according to the WSS signal.

If a WSS signal is not included, the picture is displayed according to the ZOOM mode set with the 4:3 AUTO ASPECT function.

• For details of the 4:3 AUTO ASPECT function, see "4:3 AUTO ASPECT" on page 25.

• When the AUTO (WSS) mode does not function correctly due to poor WSS signal quality or when you want to change the ZOOM mode, press the **ZOOM** button and change to another ZOOM mode.
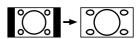
REGULAR:

Use to view a normal picture (4:3 aspect ratio) as this is its original shape.
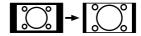

PANORAMIC:

This stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the screen, without making the picture appear unnatural.

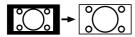• The top and bottom of the picture are slightly cut off.

14:9 ZOOM:

This zooms up the wide picture (14:9 aspect ratio) to the upper and lower limits of the screen.

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16:9 ZOOM:

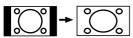This zooms up the wide picture (16:9 aspect ratio) to the full screen.

16:9 ZOOM SUBTITLE:

This zooms up the wide picture (16:9 aspect ratio) with subtitles to the full screen.

FULL:
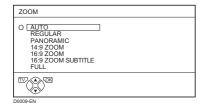
This uniformly stretches the left and right sides of a normal picture (4:3 aspect ratio) to fill the wide TV screen.

• For 16:9 aspect ratio pictures that have been squeezed into a normal picture (4:3 aspect ratio), use the FULL mode to restore the picture to its original shape.

■ Choose the ZOOM mode

1 Press the ZOOM button to display the ZOOM menu


```
ZOOM

O  AUTO
   REGULAR
   PANORAMIC
   14:9 ZOOM
   16:9 ZOOM
   16:9 ZOOM SUBTITLE
   FULL
```

D0009-EN

2 Press the ▼/▲ buttons to choose a ZOOM mode. Then press the OK button

The picture expands and the chosen ZOOM mode is displayed in about 3 seconds.

• The ZOOM mode may be automatically changed by the control signal from an external device. When you want to return to the previous ZOOM mode, choose the ZOOM mode again.

■ Adjusting the visible area of the picture

If subtitles or the top (or bottom) of the picture are cut off, you can adjust the visible area of the picture manually.

1 Press the ZOOM button

The ZOOM menu appears.

2 Press the OK button to display the ZOOM mode indicator

The indicator appears.

```
16 : 9   ZOOM       ⬍
```

D0010-EN

3 While it is displayed, press the ▼/▲ buttons to change the position of the picture

• You cannot adjust the visible area in REGULAR or FULL mode.

Surround function (Dolby Pro Logic II)

You can enjoy sounds with a wider ambience.
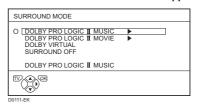
• Dolby Pro Logic II creates five full-bandwidth output channels from two-channel sources.
This is done using an advanced, high-purity matrix surround decoder that extracts the spatial properties of the original recording without adding any new sounds or tones.

• This function does not work for the sound from headphones.

1 Press the ⊕ (surround) button

The SURROUND MODE menu appears.

```
SURROUND MODE

O  DOLBY PRO LOGIC Ⅱ MUSIC    ▶
   DOLBY PRO LOGIC Ⅱ MOVIE    ▶
   DOLBY VIRTUAL
   SURROUND OFF

   DOLBY PRO LOGIC Ⅱ MUSIC
```

D0111-EK

16

2 Press the ▼/▲ buttons and choose the surround mode

The surround mode changes as follows each time the buttons are pressed.

DOLBY PRO LOGIC II MUSIC:

Choose when surround speakers are connected.

This mode is for use with any stereo music recordings, and provides a wide and deep sound space.

- Set the surround settings in advance (see "Surround settings (Dolby Pro Logic II)" on page 17).

DOLBY PRO LOGIC II MOVIE:

Choose when surround speakers are connected.

Movie programmes with Dolby* Surround sound are heard with 5.1ch surround sound.

- Set the surround settings in advance (see "Surround settings (Dolby Pro Logic II)" on page 17).

DOLBY VIRTUAL:

Choose when surround speakers (sold separately) are not connected.

Programmes with stereo sound and Dolby* Surround sound are heard with a surround effect using only the TV speaker

SURROUND OFF:

Choose when you want to stop the surround effect.

- The surround mode can also be chosen and set from the SOUND menu (see page 26).

* Manufactured under license from Dolby Laboratories.
"Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.

■ **Surround settings (Dolby Pro Logic II)**
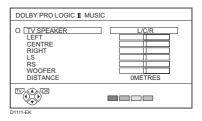
Set DOLBY PRO LOGIC II MUSIC or DOLBY PRO LOGIC II MOVIE.

1 Press the ⊕ (surround) button
The SURROUND MODE menu appears.

2 Press the ▼/▲ buttons and choose DOLBY PRO LOGIC II MUSIC or DOLBY PRO LOGIC II MOVIE, then press the OK or ▶ button
The DOLBY PRO LOGIC II MUSIC or DOLBY PRO LOGIC II MOVIE menu appears.

Example:
When DOLBY PRO LOGIC II MUSIC is chosen


```
DOLBY PRO LOGIC II MUSIC

O  TV SPEAKER                    L/C/R
      LEFT
      CENTRE
      RIGHT
      LS
      RS
      WOOFER
      DISTANCE                  0METRES

   TV        OK

D1111-EK
```

3 Press the ▼/▲ buttons to choose an item. Then press the ◀/▶ buttons to change the setting

TV SPEAKER:

L/C/R:
Choose when using the TV speaker.

CENTRE:
Choose when using external L/R speakers and the TV speaker as the centre speaker.

OFF:
Choose when using an external front speaker. Sound does not come from the TV speaker.

LEFT:
Set the volume for the left speaker.

CENTRE:
Set the volume for the centre speaker.

RIGHT:
Set the volume for the right speaker.

17

LS:
Set the volume for the left surround speaker.

RS:
Set the volume for the right surround speaker.

WOOFER:
Set the volume for the sub woofer.

DISTANCE:
Change the setting according to the distance between the front speaker and the listening point and the distance between the surround speaker and the listening point.
Choose from 0, 1.0, 3.0, and 4.5.
When the distance between the surround speaker and the listening point is the same as the distance between the front speaker and the listening point, set to 0.
When the distance between the surround speaker and the listening point is shorter than the distance between the front speaker and the listening point, set to 1.0, 3.0, or 4.5 depending on the difference.

■ **Set while listening to the test tone**
You can set each speaker while listening to the test tone.
• The volume cannot be adjusted while the menu is displayed. Adjust the volume to a suitable level before displaying the menu.

Press the blue button while the DOLBY PRO LOGIC II MUSIC menu or DOLBY PRO LOGIC II MOVIE menu is displayed
The test tone sounds form each speaker in turn. Set the balance of each speaker while listening to the test tone.

Stopping the test tone
Press the blue button again.

Return to TV channel instantly

You can return to a TV channel instantly.

Press the *TV* button
The TV returns to the TV mode and a TV channel appears.

Operating a JVC brand VCR or DVD player

These buttons will operate a JVC brand VCR or DVD player. Pressing a button that looks the same as the device's original remote control button has the same effect as the original remote control.

1 Set the VCR 🗐 DVD switch to the VCR or DVD position.

VCR:
When you are using a VCR, set the switch to the VCR position.

DVD:
When you are using a DVD player, set the switch to the DVD position.
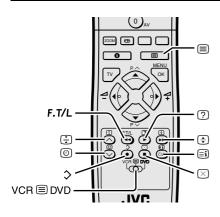
🗐 **(text):**
When you are viewing teletext programmes, set the switch to the 🗐 (text) position.

2 Press the VCR/DVD Control Button to control your VCR or DVD player
• If your device is not made by JVC, these buttons will not work.
• Even if your device is made by JVC, some of these buttons may not work, depending on the device you are using.
• You can use the ∨/∧ buttons to choose a TV channel the VCR will receive, or choose the chapter the DVD player plays back.
• Some models of DVD player use the ∨/∧ buttons for both operating the fast forward/backward functions and for choosing the chapter. In this case, the ◄◄/►► buttons do not work.

18

Teletext function

F.T/L

VCR 🖹 DVD
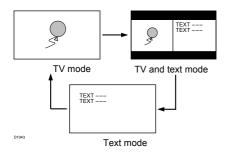
Basic operation

You can view two types of teletext broadcasts on the TV:
FLOF (Fastest) and WST.

1 Choose a TV channel with a teletext broadcast

2 Set the VCR 🖹 DVD switch to the 🖹 (Text) position

VCR 🖹 **DVD**

3 Press 🖹 (Text) button to display the teletext

Pressing 🖹 (Text) button changes the mode as follows:

TV mode   TV and text mode

D1043

Text mode

4 Choose a teletext page by pressing the P ∨/∧ buttons, number buttons or colour buttons

To return to the TV mode:
Press the **TV** button or 🖹 (Text) button.

- If you have trouble receiving teletext broadcasts, consult your local dealer or the teletext station.
- The ZOOM function will not work in the TV and text mode or Text mode.
- You cannot operate menus when viewing a teletext programme.

Using the List Mode

You can store the numbers of your favourite teletext pages in memory and call them up quickly using the colour buttons.

■ To store the page numbers:

1 Press F.T/L button to go into the List mode

The page numbers you have stored are displayed at the bottom of the screen.

2 Press a colour button to choose a position. Then press the number buttons to enter the page number

3 Press and hold down the ◇ (Store) button

The four page numbers blink white to show that they are stored in memory.

■ **To call up a stored page:**

1 Press the *F.T/L* button to enter the List mode

2 Press a colour button having a stored page

ZOOM ⊕ ☐ ☐
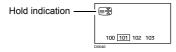
To exit the List mode:
Press the *F.T/L* button again.

Hold

You can hold a teletext page on the screen for as long as you want, even while several other teletext pages are being received.

Press the ⊞ (Hold) button

Hold indication ——— ⊟⊠

100 101 102 103

D0040

To cancel the Hold function:
Press ⊞ (Hold) button again.

Sub-page

Some teletext pages include sub-pages that are automatically displayed.
You can hold any sub-page, or view it at any time.

1 Press the ⊙ (Sub-page) button to operate the sub-page function

2 Press the number buttons to enter a sub-page number
Example:
• 3rd sub-page → press *0 (AV)*, *0 (AV)*, *0 (AV)* and *3*.

To cancel the sub-page function:
Press the ⊙ (Sub-page) button again.

Reveal

Some teletext pages include hidden text (such as answers to a quiz).
You can display the hidden text.
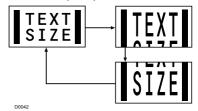
Each time you press the ⁇ (Reveal) button, text is hidden or revealed

1 + 2 =		1 + 2 = 3
2 x 3 =		2 x 3 = 6
100 101 102 103	↔	100 101 102 103

D0041

Size

You can double the height of the teletext display.

Press the ⊕ (Size) button

D0042

Index

You can return to the index page instantly.

Press the ▤ (Index) button
Returns to page 100 or a previously specified page.

Cancel

You can search for a teletext page while watching TV.

1 Press the number button to enter a page number, or press a colour button

The TV searches for a teletext page.
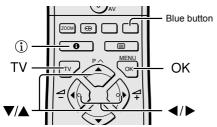
2 Press ⊠ (Cancel) button

The TV programme appears.

3 Press ⊠ (Cancel) button to return to a teletext page when the page number is on the screen

- The TV mode cannot be resumed by pressing the ⊠ (Cancel) button. To return to the TV mode press *TV*.
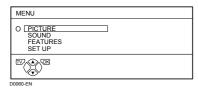
Using the TV's menu

This TV has a number of functions you can operate using menus. To fully utilize all your TV's functions, you need to understand the basic menu operating techniques fully.

Blue button

TV

OK

▼/▲

◄/►

Basic operation

1 Press the OK button to display the MENU (main menu)

MENU

○ PICTURE
  SOUND
  FEATURES
  SET UP

D0060-EN

2 Press the ▼/▲ buttons to choose a menu title, and press the OK button

The menu appears.

To return to the previous menu:
Press the ⓘ (information) button.
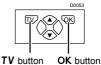
To exit a menu instantly:
Press the **TV** button.

3 Press the ▼/▲ buttons to choose a function

• For details of the functions in the menus, see the following pages.

4 Press the ◄/► buttons to choose the setting of that function

• If you want to operate a function which appears only with its name, follow the descriptions of that function on the following pages.

• The display appearing at the bottom of a menu shows you a button on the remote control that you can use when you operate a chosen function.

D0053

TV button   **OK** button
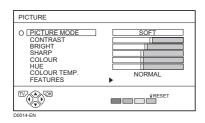
5 Press the OK button to complete the setting

The menu disappears.

• When watching the television with the NTSC system, the menus are displayed at about half their normal vertical size.

PICTURE menu

```
PICTURE

O  PICTURE MODE          SOFT
   CONTRAST
   BRIGHT
   SHARP
   COLOUR
   HUE
   COLOUR TEMP.          NORMAL
   FEATURES        ▶

TV ◆▲◆ OK                    ↓RESET
  ◆▼◆
```
D0014-EN

- While the PICTURE menu is displayed, pressing the blue button will set the CONTRAST, BRIGHT, SHARP, COLOUR, HUE settings to their default settings.

PICTURE MODE

You can choose one of three PICTURE MODEs to adjust the picture settings automatically.

BRIGHT:
Heightens contrast and sharpness.

STANDARD:
Standardizes picture adjustment.

SOFT:
Softens contrast and sharpness.

CONTRAST

You can adjust the picture contrast.
◀ : lower
▶ : higher

BRIGHT

You can adjust the picture brightness.
◀ : darker
▶ : brighter

SHARP

You can adjust the picture sharpness.
◀ : softer
▶ : sharper

COLOUR

You can adjust the picture colour.
◀ : lighter
▶ : deeper

HUE

You can adjust the picture tint.
◀ : reddish
▶ : greenish
- You can change the HUE setting (picture hue) when the colour system is NTSC 3.58, or NTSC 4.43.

COLOUR TEMP.

You can select one of three COLOUR TEMP. modes (three tones of white) to adjust the white balance of the picture. Since white is the colour which is used as a reference for all the other colours, changing the COLOUR TEMP. mode affects the appearance of all the other colours on the screen.

COOL:
A bluish white. Using this mode when watching bright pictures allows you to enjoy a more vivid and bright picture.

NORMAL:
The normal white colour.

WARM:
A reddish white. Using this mode when watching films allows you to enjoy colours that are characteristic of films.

FEATURES

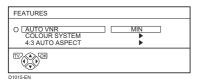Choose FEATURES and press the **OK** or ► button to display the sub-menu.

```
FEATURES

O  AUTO VNR              MIN
   COLOUR SYSTEM          ►
   4:3 AUTO ASPECT        ►

TV    OK
```
D1015-EN

■ AUTO VNR

VNR Stands for "video noise reduction".

AUTO:

This mode reduces any "noise" (interference or snowing) in the current picture. The function also adjusts the optimum sharpness of the picture (SHARP).

OFF:

The AUTO VNR function is cancelled. If you set the mode to AUTO but feel that the sharpness of the original picture has not been reproduced fully, change the mode to OFF. However, any noise remaining in the original picture may be emphasized.

MIN:

This mode reduces any noise irrespective of the state of the picture. If you set the mode to AUTO but feel that the sharpness of the original picture has not been reproduced, change the mode MIN. However, any noise remaining in the original picture may be emphasized a little. And this may reduce the sharpness of the picture a little.

MAX:
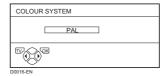
This mode always reduces any noise as much as possible, irrespective of the state of the picture. When you set the mode to AUTO but still notice some noise, change the mode to MAX. However, this may reduce the sharpness of the picture.

■ COLOUR SYSTEM

The colour system is chosen automatically. However, if the picture is not clear or no colour appears, choose the colour system manually.

1 Choose COLOUR SYSTEM. Then press the OK or ► button

The sub-menu of the COLOUR SYSTEM function appears.

```
COLOUR SYSTEM


         PAL

TV    OK
```
D0016-EN

2 Press the ◄/► buttons to choose the appropriate colour system. Then press the OK button

PAL:

PAL system

NTSC 3.58:

NTSC 3.58 MHz system

NTSC 4.43:

NTSC 4.43 MHz system

AUTO:

This function detects a colour system from the input signal. You can only use this when you are viewing a picture from programme number PR 0 (AV), or an EXT terminal.

• The AUTO function may not work properly if you have poor signal quality. If the picture is abnormal in the AUTO function, choose another colour system manually.
• When in the Programme numbers PR 0 (AV) to PR 99, you cannot choose NTSC 3.58 or NTSC 4.43.

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■ 4:3 AUTO ASPECT
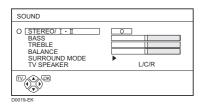
You can choose one of three ZOOM modes, REGULAR, PANORAMIC or 14:9 ZOOM, as the ZOOM mode for the normal picture (4:3 aspect ratio).

1 Choose 4:3 AUTO ASPECT then press the OK button

```
4:3 AUTO ASPECT

O  PANORAMIC
   REGULAR
   14:9 ZOOM

TV    OK
```

D0017-EN

2 Press the ▼/▲ buttons to choose a ZOOM mode

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SOUND menu

```
SOUND

O  STEREO/ I · II          O
   BASS
   TREBLE
   BALANCE
   SURROUND MODE        ▶
   TV SPEAKER             L/C/R

TV  ◁◆▷  OK
     ▽
```
D0019-EK

STEREO / I • II

When you are viewing a bilingual broadcast
programme, you can choose the sound from
Bilingual I (Sub I) or Bilingual II (Sub II). If
you have poor reception on a stereo
broadcast, you can change from stereo to
mono sound so that you can hear the
broadcast more clearly and easily.

CD : Stereo sound

O : mono sound

I : Bilingual I (sub I)

II : Bilingual II (sub II)

- The sound mode you can choose differs
  depending on the TV programme.
- This function does not work in the EXT
  modes.

BASS

You can adjust the low tone of the sound.
◀ : weaker
▶ : strong

TREBLE

You can adjust the high tone of the sound.
◀ : weaker
▶ : strong

BALANCE

You can adjust the volume balance between
the left and right speaker.
◀ : turn the left speaker's volume level up.
▶ : turn the right speaker's volume level up.
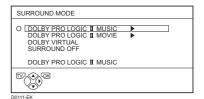
SURROUND MODE

Choose and set the surround mode.

**1 Choose the SURROUND MODE,
   and then press the OK or ▶ button**
   The SURROUND MODE menu appears.

```
SURROUND MODE

O  DOLBY PRO LOGIC II MUSIC   ▶
   DOLBY PRO LOGIC II MOVIE    ▶
   DOLBY VIRTUAL
   SURROUND OFF

   DOLBY PRO LOGIC II MUSIC

TV  ◁◆▷  OK
     ▽
```
D0111-EK
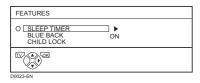
**2 Press the ▼/▲ buttons and choose
   the surround mode**
   - For details of the surround mode, see
     "Surround function (Dolby Pro Logic
     II)" on page 16.
   - When the DOLBY PRO LOGIC II
     MUSIC or DOLBY PRO LOGIC II
     MOVIE is chosen, the surround
     settings can be set (see "Surround
     settings (Dolby Pro Logic II)" on
     page 17).

TV SPEAKER

The settings for the TV SPEAKER set when
DOLBY PRO LOGIC II MUSIC or DOLBY
PRO LOGIC II MOVIE is chosen are
displayed.
The TV SPEAKER settings cannot be
changed here.

FEATURES menu

FEATURES

```
FEATURES
O [ SLEEP TIMER        ] ▶
   BLUE BACK          ON
   CHILD LOCK
TV◁◇▷OK
D0023-EN
```
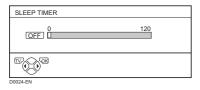
SLEEP TIMER

You can set the TV to automatically turn off after a set period of time.

1 Choose SLEEP TIMER. Then press the OK or ▶ button

A Sub-menu of the SLEEP TIMER function appears.

```
SLEEP TIMER
         0                    120
   [OFF] [                    ]
TV◁◇▷OK
D0024-EN
```

2 Press the ◀/▶ buttons to set the period of time.
Then press the OK button

You can set the period of time for up to 120 minutes (2 hours) in 10 minute steps.

- One minute before the SLEEP TIMER function turns off the TV, "GOODNIGHT!" appears.
- The SLEEP TIMER function cannot be used to turn off the TV's main power.
- When the SLEEP TIMER function is on, you can display the sub-menu of the SLEEP TIMER function again to confirm or change the remaining period of time of the SLEEP TIMER function. Press the OK button to leave the menu after confirming or changing the remaining time.

To cancel the SLEEP TIMER function:

Press the ◀ button to set the period of time to "OFF".

BLUE BACK

You can set the TV to automatically change to a blue screen and mute the sound if the signal is weak or absent, or when there is no input from an external device.

ON:
This function is turned on.

OFF:
This function is turned off.

CHILD LOCK

When there is a TV channel you do not want your children to watch, you can use the CHILD LOCK function to lock out the TV channel. Even when a child chooses a programme number (PR) for a locked TV channel the screen will change to blue and display 🔒 (CHILD LOCK) so the TV channel cannot be viewed. Unless you enter a pre-set ID number by a special operation, the lock cannot be released and the child cannot view the TV channel.

■ To set the CHILD LOCK function

1 Choose CHILD LOCK, then press the 0 button

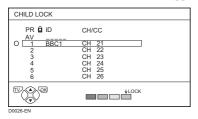"SET ID NO." (ID number setting screen) appears.

```
SET ID NO.

      0-π  [ 0000 ]
TV◁◇▷OK
D0025-EN
```

2 Set the ID number to your liking

1 Press the ▼/▲ buttons to choose a number.

2 Press the ◀/▶ buttons to move the cursor.

27

3 Press the OK button

The Sub-menu of CHILD LOCK appears.

```
CHILD LOCK

      PR  🔒 ID       CH/CC
      AV     _ _ _ _ _
 O    1    BBC1       CH  21
      2               CH  22
      3               CH  23
      4               CH  24
      5               CH  25
      6               CH  26

  TV / ◆ \ OK                          ↓LOCK
     \ ◆ /          ▭ ▭ ▭ ▭
D0026-EN
```

4 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the Programme number (PR) changes, and the picture of the TV channel registered in the Programme number (PR) is displayed on the screen.

5 Press the blue button and set the CHILD LOCK function.
Then press the OK button

🔒 (CHILD LOCK) appears and the TV channel is locked.
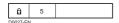
To reset the CHILD LOCK function:
Press the blue button again.
🔒 (CHILD LOCK) disappears.

To disable easy resetting of the CHILD LOCK function, the menu disappears if you choose the CHILD LOCK function and press the OK button.

■ **To view a locked TV channel**

1 Choose a programme number (PR) of a locked TV channel with the number buttons or PR LIST

The screen changes to blue and the 🔒 (CHILD LOCK) appears. You cannot view the TV channel.

```
  🔒  │  5  │
  D0027-EN
```

2 Press the ⓘ (Information) button to display "ID NO." (ID No. input screen)

```
  🔒  │  5  │
  ID NO. : - - - - -
  D0028-EN
```

3 Press the number buttons to enter the ID number
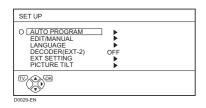
The lock is temporarily released so you can view the TV channel.

If you have forgotten the ID number:
Perform step 1 of "To set the CHILD LOCK function". After confirming the ID number, press the *TV* button to exit the menu.

- Even if you reset the lock temporarily, it does not mean that the CHILD LOCK function set for the TV channel is cancelled. The next time anyone tries to view the TV channel, it will be locked again.
- When you want to cancel the CHILD LOCK function, you must perform the operation "To set the CHILD LOCK function" again.
- To stop it being easy to choose the programme number (PR) of a locked TV channel, the programme number (PR) has been set so that it cannot be chosen with the ▼/▲ buttons or the buttons of the TV.
- To stop it being easy to reset the lock, "ID NO." (ID No. input screen) is set so that it cannot appear unless you press the ⓘ (Information) button.

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SET UP menu

```
SET UP

O  AUTO PROGRAM      ▶
   EDIT/MANUAL       ▶
   LANGUAGE          ▶
   DECODER(EXT-2)    OFF
   EXT SETTING       ▶
   PICTURE TILT      ▶

TV ◀▲▶ OK
   ▼

D0029-EN
```

AUTO PROGRAM

You can again perform the AUTO
PROGRAM function TV channel automatic
registration which was performed in the
"Initial settings" (page 8).
To receive SKY 1 you need a satellite tuner.
You must have the satellite tuner set to SKY
1 before starting the AUTO PROGRAM
function.

1 Choose AUTO PROGRAM

2 Press the OK or ▶ buttons to start the AUTO PROGRAM function

The AUTO PROGRAM menu appears
and received TV channels are
automatically stored in the programme
number (PR).

3 Perform step 4 of the "Initial settings" (page 9)

EDIT/MANUAL

The EDIT/MANUAL functions are divided
into two types:

• editing the current programme numbers
  (PR) (EDIT functions); and
• manually storing a TV channel you want
  to view on a particular programme
  number (PR) (MANUAL function).

Here are the details about these functions:

MOVE:
This function changes the programme
number (PR) of a TV channel.

ID:
This function registers a channel name (ID)
to a TV channel.

INSERT:
This function adds a new TV channel in the
current programme numbers (PR) list by
using the CH number.

• You cannot use the INSERT function if
  you do not know the channel number of a
  TV channel. Use the MANUAL function
  to register a TV channel in the programme
  number (PR).

DELETE:
This function deletes a TV channel you do
not want to list.

MANUAL:
This function manually stores a new TV
channel in a programme number (PR).
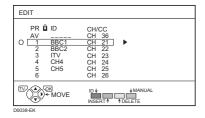
Caution

• Using the MOVE, DELETE or INSERT
  functions rewrites the current programme
  numbers (PR) list. Therefore, the
  programme numbers (PR) of some of the
  TV channels will change.
• Using the MANUAL function for a TV
  channel for which the CHILD LOCK
  function has been set cancels the CHILD
  LOCK function for that channel.
• Using the MANUAL function for a TV
  channel for which the DECODER (EXT-2)
  function has been set to ON returns the
  setting of the DECODER (EXT-2) function
  for that channel to OFF.
• When a TV channel has already been
  registered in PR 99, using the INSERT
  function deletes that TV channel.

■ Basic operation

1 Choose EDIT/MANUAL, then press the OK or ▶ button

The EDIT menu appears.

```
EDIT

     PR 🔒 ID        CH/CC
     AV    _____     CH  36
  O   1    BBC1      CH  21      ▶
      2    BBC2      CH  22
      3    ITV       CH  23
      4    CH4       CH  24
      5    CH5       CH  25
      6              CH  26

  TV ◇ OK           ID↓        ↓MANUAL
       ← MOVE     INSERT↑    ↑DELETE
```
D0038-EK

2 Follow the description for the function you want to use

3 Press the OK button to complete the settings

The T-V LINK menu appears.

```
T-V LINK

   DOWNLOAD TV → VCR

  TV ◇ OK   EXIT
```
D0005-EN

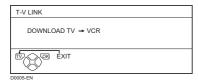**If you do not have a T-V LINK compatible VCR connected:**
Press the *TV* button to exit the T-V LINK menu.
The T-V LINK menu disappears.

If you have a T-V LINK compatible VCR connected to the EXT-2 terminal:
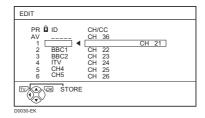Follow "Downloading the data to VCR" on page 10 to transmit the programme number (PR) data.

• For programme number PR 0, "AV" appears in the programme numbers (PR) list.
• An EXT terminal number does not appear in the programme numbers (PR) list.
• The CH number is a number unique to the TV and corresponds to the channel number of a TV channel. For the relationship between a channel number and a CH number, see "CH NUMBER" on page 32.

■ MOVE

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the programme number (PR) changes and the picture of the TV channel stored in the programme number (PR) appears on the screen.

2 Press the ▶ button to start the MOVE function

```
EDIT

     PR 🔒 ID        CH/CC
     AV    _____     CH  36
      1                              CH  21
      2    BBC1      CH  22  ◀
      3    BBC2      CH  23
      4    ITV       CH  24
      5    CH4       CH  25
      6    CH5       CH  26

  TV ◇ OK   STORE
```
D0030-EK

3 Press the ▼/▲ buttons to choose a new programme number (PR)

To cancel the MOVE function:
Press the ⓘ (Information) button.

4 Press the ◀ button to change the programme number (PR) of a TV channel to a new programme number (PR)

■ DELETE

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the programme number (PR) changes and the picture of the TV channel stored in the programme number (PR) appears on the screen.
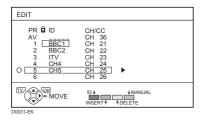
2 Press the yellow button to delete the TV channel

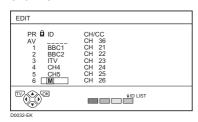The TV channel is deleted from the programme numbers (PR) list.

■ **ID**

1 Press the ▼/▲ buttons to choose a TV channel

Every time you press the ▼/▲ buttons, the programme number (PR) changes and the picture of the TV channel stored in the programme number (PR) appears on the screen.
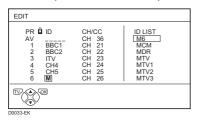
2 Press the red button to start the ID function

```
EDIT

PR  🔒 ID        CH/CC
AV     _ _ _ _ _   CH   36
1      BBC1        CH   21
2      BBC2        CH   22
3      ITV         CH   23
4      CH4         CH   24
O  5   CH5         CH   25      ▶
6                  CH   26

TV  ⟨◆⟩  OK   ← MOVE    ID↓        ↓MANUAL
                        INSERT↑  ↑DELETE
```
D0031-EK

3 Press the ▼/▲ buttons to choose the first character of a channel name (ID) you want to give the TV channel

```
EDIT

PR  🔒 ID        CH/CC
AV     _ _ _ _ _   CH   36
1      BBC1        CH   21
2      BBC2        CH   22
3      ITV         CH   23
4      CH4         CH   24
5      CH5         CH   25
6      M           CH   26

TV  ⟨◆⟩  OK                        ↓ID LIST
```
D0032-EK

4 Press the blue button to display the ID LIST (channel name list)

```
EDIT

PR  🔒 ID        CH/CC      ID LIST
AV     _ _ _ _ _   CH   36    M6
1      BBC1        CH   21    MCM
2      BBC2        CH   22    MDR
3      ITV         CH   23    MTV
4      CH4         CH   24    MTV1
5      CH5         CH   25    MTV2
6      M           CH   26    MTV3

TV  ⟨◆⟩  OK
```
D0033-EK

5 Press the ▼/▲ buttons to choose the channel name (ID)

To cancel the ID function:
Press the ⓘ (Information) button.

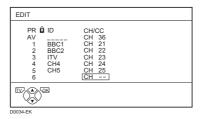**6 Press the OK button to give a channel name (ID) to a TV channel**

• You can give your own unique channel name (ID) to the TV channel. When you have finished step 3, do not go to step 4. Press the ◀/▶ buttons to move the cursor, and press the ▼/▲ buttons to choose each character of the channel name (ID). Then press the OK button to register the channel name (ID) to the TV channel.

Before performing INSERT or MANUAL operation

• A CH number unique to this TV and corresponding to the Channel number of a TV channel is required. Find the corresponding CH number from the table "CH NUMBER" on page 32 based on the Channel number of the TV channel.

■ **INSERT**

1 Press the ▼/▲ buttons to choose a programme number (PR) for which you will register a new TV channel

2 Press the green button and start the INSERT function

```
EDIT

PR  🔒 ID        CH/CC
AV     _ _ _ _ _   CH   36
1      BBC1        CH   21
2      BBC2        CH   22
3      ITV         CH   23
4      CH4         CH   24
5      CH5         CH   25
6                  CH   - -

TV  ⟨◆⟩  OK
```
D0034-EK

To cancel the INSERT function:
Press the ⓘ (Information) button.

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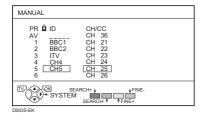**3 Press the number buttons to enter the remaining CH number**
- You cannot enter CC numbers.

The TV shifts to registration mode. When the registration is completed, the picture of the TV channel appears on the screen.
- The CH number is a number given to each broadcast frequency that carries a TV channel. If the TV cannot detect the TV channel corresponding to the broadcast frequency indicated by the CH number, a "no-signal" picture appears.

■ MANUAL

1 Press the ▼/▲ buttons to choose a programme number (PR) for a new TV channel

2 Press the blue button to activate the MANUAL function

D0035-EK

To cancel the MANUAL function:
Press the ⓘ (Information) button.

3 Press the green or red button to search for a TV channel

Scanning stops when the TV finds a TV channel. Then the TV channel is displayed.

4 Press the green or red button repeatedly until the TV channel you want appears

If the TV channel reception is poor:
Press the blue or yellow button to fine-tune the TV channel.

5 Press the OK button and register the TV channel to a Programme number (PR)
The normal EDIT menu is resumed.

■ CH NUMBER
- When you want to use the INSERT function on page 31, find the CH number corresponding to the channel number of the TV channel from this table.
  If you want to know a particular TV channel's channel menu, look in TV listings magazines or contact the broadcaster.
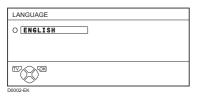
CH	Channel	CH	Channel
CH 21	E21	CH 46	E46
CH 22	E22	CH 47	E47
CH 23	E23	CH 48	E48
CH 24	E24	CH 49	E49
CH 25	E25	CH 50	E50
CH 26	E26	CH 51	E51
CH 27	E27	CH 52	E52
CH 28	E28	CH 53	E53
CH 29	E29	CH 54	E54
CH 30	E30	CH 55	E55
CH 31	E31	CH 56	E56
CH 32	E32	CH 57	E57
CH 33	E33	CH 58	E58
CH 34	E34	CH 59	E59
CH 35	E35	CH 60	E60
CH 36	E36	CH 61	E61
CH 37	E37	CH 62	E62
CH 38	E38	CH 63	E63
CH 39	E39	CH 64	E64
CH 40	E40	CH 65	E65
CH 41	E41	CH 66	E66
CH 42	E42	CH 67	E67
CH 43	E43	CH 68	E68
CH 44	E44	CH 69	E69
CH 45	E45		

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LANGUAGE

1 Choose LANGUAGE, then press the OK or ▶ button

A sub-menu of the LANGUAGE function appears.

```
LANGUAGE

O  ENGLISH

TV    OK
```
D0002-EK

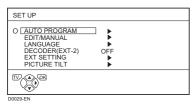## 2 Press the OK button

DECODER (EXT-2)

If you have a decoder connected to a T-V LINK compatible VCR, which in turn is connected to the EXT-2 terminal, use the DECODER (EXT-2) function to unscramble the scrambled TV channels.

1 Turn on the decoder power

2 Display the scrambled TV channel on the TV

Even if the decoder is working, a scrambled picture appears.

3 Display the SET UP menu and choose DECODER (EXT-2)

```
SET UP

O  AUTO PROGRAM        ▶
   EDIT/MANUAL         ▶
   LANGUAGE            ▶
   DECODER(EXT-2)      OFF
   EXT SETTING         ▶
   PICTURE TILT        ▶

TV    OK
```
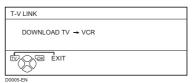D0029-EN

4 Press the ◀/▶ buttons to choose ON

An unscrambled picture appears.

To cancel the DECODER (EXT-2) function:

Press the ◀/▶ buttons to choose OFF.

5 Press the OK button to complete the setting

The T-V LINK menu appears.

```
T-V LINK

   DOWNLOAD TV → VCR

TV    OK   EXIT
```
D0005-EN

You can send the programme numbers data to a VCR with the T-V LINK function.

6 Turn on the VCR, and then press the OK button to transmit the data to VCR

The T-V LINK menu disappears once the data transmission ends.

7 If you have another TV channel capable of being unscrambled with a Decoder, repeat steps 2 to 6
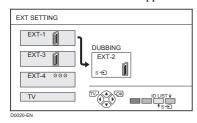
If the DECODER (EXT-2) function has been set to "ON" but the TV channel cannot be unscrambled, check the following:

- Has the decoder been connected to the VCR properly according to the VCR and decoder instruction manuals?
- Has the decoder power been turned on?
- Can the TV channel be unscrambled with a decoder?
- Do you need to change the VCR settings in order to connect the decoder? Confirm that the VCR is set properly by rechecking the VCR instruction manual.

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EXT SETTING

1 Choose EXT SETTING, then press the OK or ▶ button

The EXT SETTING menu appears.

2 Follow the instructions for the function you want to use and operate the function

S⊟:

You can enjoy the high-quality picture of the 2 S-VIDEO signal (Y/C signal).

ID LIST:

You can have a name for each of the devices connected for each EXT terminal.

DUBBING:

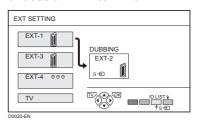You can choose a signal source to be output from an EXT-2 terminal.

■ S⊟ (S-VIDEO input)

You can connect a device (such as an S-VHS VCR) to enjoy the high-quality picture of the S-VIDEO signal (Y/C signal).

Preparation:

• First read the device's instruction manual and "Additional preparation" on page 37 to connect the device to the TV properly. Second, follow the device's instruction manual to set the device so that it sends an S-VIDEO signal (Y/C signal) to the TV.

• Do not set S⊟ (S-VIDEO input) to an EXT terminal connected to a device which cannot output an S-VIDEO (Y/C signal). If it is set wrongly, a picture cannot appear.

1 Press the ◀/▶ or ▼/▲ buttons to choose an EXT terminal

2 Press the yellow button and set the S⊟ (S-VIDEO input). Then press the OK button

An S⊟ (S-VIDEO input) mark is displayed. You can view an S-VIDEO signal (Y/C signal) instead of the regular video signal (composite signal).

To cancel the S⊟ (S-VIDEO input) setting:

Press the yellow button and turn off S⊟ (S-VIDEO input) mark. The regular video signal (composite signal) pictures are resumed.
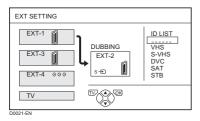
• The EXT-1 terminal does not support S-VIDEO signal (Y/C signal) and you cannot set S⊟ (S-VIDEO input) in the EXT-1 terminal.

• Setting S⊟ (S-VIDEO input) changes the head character from "E" to "S". When an EXT terminal receives a normal video signal, "E1", "E2", "E3" or "E4" appears on the display. This changes to "S2" or "S3" when it receives an S-VIDEO signal.

• Even a device which can output an S-VIDEO signal (Y/C signal) may output a regular video signal (composite signal) depending on the device setting. If a picture cannot appear because the S⊟ (S-VIDEO input) setting has been made, read the device instruction manual carefully again to check for the device settings.

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■ ID LIST

You can store a name for each of the devices connected to each EXT terminal. Giving a name to an EXT terminal makes the EXT terminal number appear on the screen, together with its name.

1 Press the ◄/► or ▼/▲ buttons to choose an EXT terminal

2 Press the blue button to display the name list (ID LIST)

D0021-EN

3 Press the ▼/▲ buttons to choose a name. Then press the OK button

The ID LIST disappears and the name is assigned to the EXT terminal.

• You cannot assign an EXT terminal name not found in the name list (ID LIST).

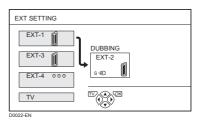**To erase a name assigned to the EXT terminal:**
Choose a blank space.

4 Press the OK button to complete the setting

■ DUBBING

You can choose a signal source to be output from the EXT-2 terminal.

You can do this with the output signals of the devices connected to other EXT terminals, or with the picture and sound from a TV channel you are currently viewing.

1 Press the ◄/► buttons to choose the arrow from the menu

D0022-EN

2 Press the ▼/▲ buttons to choose an EXT terminal or TV. Then press the OK button

The arrow in the menu represents a signal flow. The left side of the arrow shows a signal source output from the EXT-2 terminal.

EXT-1/EXT-3/EXT-4:
The output signal of the device connected to an EXT terminal passes through the TV and is output from the EXT-2 terminal.

TV:
The picture and sound of the TV channel you are currently viewing are output from the EXT-2 terminal.
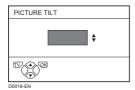
• During dubbing, you cannot turn off the TV. Turning off the TV also turns off the output from the EXT-2 terminal.
• When you choose an EXT terminal as an output, you can view a TV programme or a picture from the other EXT terminal while dubbing the picture from a device connected to the EXT terminal onto a VCR connected to the EXT-2 terminal.
• The RGB signals from TV games cannot be output. Teletext programmes cannot be output.

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PICTURE TILT (Only for AV-32R47SK)

There are cases where the Earth's magnetic field may make the picture tilt or make unnatural colours appear in the corner of the screen. If this happens, you can correct it.

1 Choose PICTURE TILT, then press the OK or ▶ button

The sub-menu of the PICTURE TILT function appears.

D0018-EN

2 Press the ▼/▲ buttons until the picture becomes level. Then press the OK button
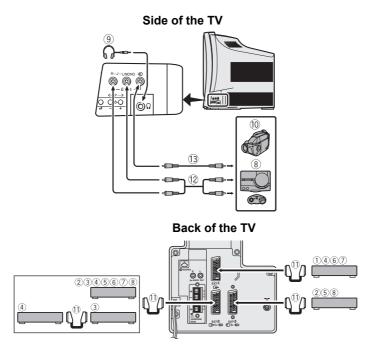
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Additional preparation

Connecting external equipment

Connect the equipment to the TV, making the correct rear panel and front panel connections.

Before connecting anything:

• Read the manuals that came with the equipment.
  Depending on the equipment, the connection method may be different from the diagram. Also, the equipment settings may need to change depending on the connection method.
• Turn off all the equipment including the TV.
• The "Specifications" on the back cover give the details of the EXT terminals. If you are connecting equipment not listed in the following connection diagram, see the table to choose the best EXT terminal.
• Connecting cables are not supplied.

① VCR (composite signal)
② VCR (composite signal/S-VIDEO signal)
③ T-V LINK compatible VCR (composite signal/S-VIDEO signal)
④ Decoder
⑤ DVD player (composite signal/S-VIDEO signal)
⑥ DVD player (composite signal/RGB signal)
⑦ TV game (composite signal/RGB signal)
⑧ TV game (composite signal)
⑨ Headphones
⑩ Camcorder (composite signal/S-VIDEO signal)
⑪ SCART cable
⑫ Audio cable
⑬ Video cable

Side of the TV

Back of the TV

■ **Equipment which can output the S-VIDEO signal (Y/C signal) such as an S-VHS VCR**

Connect the equipment to an EXT terminal (but not the EXT-1 terminal).

You can choose between an S-VIDEO signal (Y/C signal) and a regular video signal (composite signal). For details of how to operate the equipment, see "S⊖ (S-VIDEO input)" on page 34.

■ **T-V LINK compatible VCR**

Be sure to connect the T-V LINK compatible VCR to the EXT-2 terminal. If not, the T-V LINK function will not work properly.

• When connecting a T-V LINK compatible VCR to the EXT-2 terminal, be sure to connect the decoder to the VCR. If not, the T-V LINK function may not work properly. After you have stored TV channels in the programme numbers (PR) list, set the DECODER (EXT-2) function for the programme number (PR) to ON to unscramble a scrambled TV channel. For details, see "EXT SETTING" on page 34.

■ **Connecting headphones**

Connect the headphones with a stereo mini-jack (3.5 mm diameter) to the headphone socket at the TV rear panel.

• No sound comes from the TV speakers when the headphones are connected.

■ **Video or sound signal output from the EXT-2 terminal**

You can change over the output of the video/sound signal from the EXT-2 terminal. This is useful when you want to dub the video/sound from another device onto the VCR connected to the EXT-2 terminal. For details on how to do this, see "DUBBING" on page 35.

■ **TV output from the EXT-1 terminal**

The video/sound signal of a TV channel you are viewing is always output from the EXT-1 terminal.

• Changing over a programme number (PR) also changes over the TV output from the EXT-1 terminal.
• The video/sound signal from an EXT terminal cannot be output.
• Teletext programmes cannot be output.

Connecting speakers or an amplifier

See the audio equipment diagram, and connect the audio equipment to the TV.

Before connecting anything:

• Read the manuals that came with the amplifier and speakers.
• Turn the TV and amplifier off.
• Use impedance 8-ohm type speakers for surround speakers.
• To prevent magnetism from the speakers affecting the TV screen, use magnetic-shielded speakers for the front speakers.
• Connecting cables are not supplied.
• Pay attention to the positive ⊕ and negative ⊖ polarities when connecting the surround speakers to your TV.
• For the best effect, position the surround speakers at least 1 metre above the heads of seated viewers.
• If you want to use your external Dolby Surround decoder, connect it to the AUDIO OUT terminals. Then set all surround functions of the TV to OFF.
• The output from the AUDIO OUT terminal is not cut off by connecting headphones to the TV.
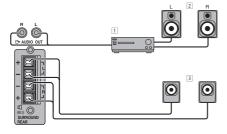
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■ Audio amplifier and front speakers

You can use external front speakers to listen to the TV sound instead of the TV speakers. Also note that when you want to use the DOLBY PRO LOGIC II MUSIC or DOLBY PRO LOGIC II MOVIE, you can set it to issue sound from both of the TV speakers and external front speakers so that you can listen to spoken dialogues more clearly and easily. For details, see "Surround function (Dolby Pro Logic II)" on page 16.

- You cannot cut the sound from the front speaker even if you connect headphones to the TV.
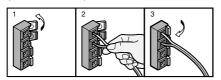
■ External surround speakers

You can connect external surround speakers to the TV so that you can use the "DOLBY PRO LOGIC II MUSIC:" or "DOLBY PRO LOGIC II MOVIE:" on page 17. Before using the DOLBY PRO LOGIC II MUSIC or DOLBY PRO LOGIC II MOVIE, however, follow "Surround settings (Dolby Pro Logic II)" on page 17.

1 Amplifier
2 Front speakers (magnetic-shielded type)
3 Surround speakers (impedance 8 ohm type)

(Terminals on rear)

■ Positioning the speakers

L   R

Approx. 45 degrees

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Troubleshooting

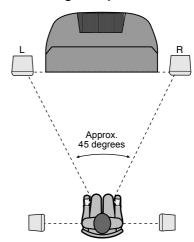If a problem arises while you are using the TV, please read this troubleshooting guide carefully before you ask to have the TV repaired. You may be able to fix it easily by yourself. For example, if the mains plug is disconnected from the mains outlet, or the TV aerial has problems, you may think there is a problem with the TV itself.

Important:
- This troubleshooting guide only covers problems whose causes are not easy to decide. If you have a question when you are operating a function, read the page(s) for that function carefully, not this troubleshooting guide.
- If you follow the advice in this troubleshooting guide without any success, unplug the mains plug and ask for your TV to be repaired. Do not attempt to repair the TV by yourself or to remove the rear cover of the TV.
- If the power lamp flashes, there is a problem with the TV. Unplug the mains plug and ask for your TV to be repaired.

■ If you cannot turn on the TV
- Is the mains plug connected to the mains outlet?

■ No picture or no sound
- Have you chosen a TV channel with very poor reception? If so, the BLUE BACK function will be activated: the entire screen becomes blue, and the sound is muted. If you still want to view the TV channel, follow the description "BLUE BACK" on page 27 to change the BLUE BACK function setting to OFF.
- If the SYSTEM setting for a TV channel is incorrect, it may prevent the sound from being issued. Follow the description "EDIT/MANUAL" on page 29 to use the MANUAL function to try to change the SYSTEM setting.

■ Poor picture
- If noise (snow) totally blocks out the picture, there may be a problem with the aerial or aerial cable. Check the following to try to solve the problem:
  –Have the TV and aerial been connected properly?
  –Has the aerial cable been damaged?
  –Is the aerial pointing in the right direction?
  –Is the aerial itself faulty?

- If the TV or aerial suffers interference from other equipment, stripes or noise may appear in the picture. Move any equipment such as an amplifier, personal computer, or a hair drier, that can cause interference away from your TV. Or try moving the TV. If the aerial suffers interference from a radio tower or high-voltage wire, please contact your local dealer.
- If the TV suffers interference from signals reflecting from mountains or buildings, double-pictures (ghosting) will occur. Try to change the aerial's direction or replace it with one with better directionality.
- Are your COLOUR SYSTEM settings correct? Follow the description "COLOUR SYSTEM" on page 24 to try to solve the trouble.
- Have the COLOUR and BRIGHT settings been adjusted properly? Follow the description "BRIGHT" and "COLOUR" on page 23 to try to adjust them properly.
- Videotaping teletext is not recommended because it may not record correctly.
- When a white and bright still image (such as a white dress) is displayed on the screen, the white part may look as if it is coloured. This is unavoidable due to the nature of the picture tube itself, and not due to a TV failure. When the picture disappears from the screen, the unnatural colours will also disappear.

- When viewing images from commercially available video software products, or videos from videotapes which have been recorded improperly, the top of the image may be distorted. This is due to the condition of the video signal. There is nothing wrong with the TV.

■ **Poor sound**

- Have you adjusted BASS or TREBLE properly? If not, follow the description "BASS" or "TREBLE" on page 26.
- When TV channel reception is poor, it can be hard to hear stereo or bilingual sound. In this case, follow the description "STEREO / I • II" on page 26 to hear the sound more easily by changing it to a mono sound.

■ **If the TV does not respond to the remote control**

- Have the batteries of the remote control worn out? Follow the description "Putting the batteries into the remote control" on page 8 and replace them with new batteries.
- Have you attempted to use the remote control from the sides or rear of the TV or from more than seven metres away from the TV? Use the remote control in front of your TV or from less than seven metres away.
- When you are viewing a teletext programme, you cannot operate the menus. Press the ***TV*** button to return to the ordinary TV programme, and then try operating the menus.
- If the TV suddenly stops responding, press the main power button on the TV and turn off the main power. Press the main power button again to turn on the TV. If the TV returns to a normal state, it is not a failure.

■ **Other issues**

- When the SLEEP TIMER function operates, the TV is automatically turned off. If the TV suddenly turns off, try to press the ⏻/I (standby) button to turn on the TV once again. If the TV goes back to normal, there is no problem.
- When the TV is receiving a wide-screen signal (WSS) or a signal from an external device affecting the screen size, the ZOOM mode automatically changes. When you want to resume the previous ZOOM mode, press the **ZOOM** button again.
- If you bring magnetised equipment such as a speaker near to your TV, the picture may be warped or unnatural colours may appear at the corners of the screen. In this case, keep the equipment away from your TV. If speakers cause this to happen, use magnetically-shielded speakers instead.
- A picture may be tilted due to the earth's magnetic field. If so, use the "PICTURE TILT (Only for AV-32R47SK)" on page 36 to correct the tilt.
- It takes a short period of time from the time an operation such as changing channels is performed until an image is displayed. This is not a fault. This is the time needed for the image to stabilize before it can be displayed.
- The TV may make a crackling sound due to a sudden change in temperature. The picture or sound may be normal. If you hear crackling sounds frequently while you are viewing the TV, there may be other causes. As a precaution, ask your service technician to inspect it.
- Touching the screen may cause you to feel a slight electric shock due to its static electricity. This is unavoidable due to the construction of the picture tube. It is not a problem with the TV. You can rest assured that this static discharge is not harmful.

Specifications

Model Item	AV-32R47SK	AV-28R47SK
Broadcasting systems	CCIR I	
Colour systems	PAL • The EXT terminals also support the NTSC 3.58/4.43 MHz system.	
Channels and frequencies	E21-E69	
Sound-multiplex systems	NICAM (I) system	
Teletext systems	FLOF (Fastext), WST (World Standard System)	
Power requirements	220 - 240 V AC, 50 Hz	
Power consumption	115 W (Standby: 2.7 W)	115 W (Standby: 2.7 W)
Picture tube size	Viewable area 76 cm (measured diagonally)	Viewable area 66 cm (measured diagonally)
Audio output	Rated Power output: 10 W + 10 W + 10 W + 18 W	
Speakers	TV: (13 cm $\times$ 6.5 cm) oval $\times$ 2, (16 cm $\times$ 4 cm) oval $\times$ 1 Subwoofer:13 cm round $\times$ 1	
EXT-1 terminal	Euroconnector (21-pin, SCART) • Video input, Audio L/R inputs and RGB inputs are available. • TV broadcast outputs (Video and Audio L/R) are available.	
EXT-2 terminal	Euroconnector (21-pin, SCART) • Video input, S-VIDEO (Y/C) input, Audio L/R inputs and RGB inputs are available. • Video and Audio L/R outputs are available. • T-V LINK functions are available.	
EXT-3 terminal	Euroconnector (21-pin, SCART) • Video input, S-VIDEO (Y/C) input and Audio L/R inputs are available.	
EXT-4 terminal	RCA connectors $\times$ 3 • Video input and Audio L/R inputs are available.	
AUDIO OUT terminal	RCA connectors $\times$ 2 • Audio L/R outputs are available. • Output level 0.5 Vrms.	
SURROUND REAR terminal	SPEAKER terminals for external surround speakers. • Surround rear sounds are output to the speakers. • For impedance 8-ohm speakers only. • Rated power output: 7.5 W + 7.5 W	
Headphone jack	Stereo mini-jack (3.5 mm in diameter)	
Dimensions (W $\times$ H $\times$ D)	864 mm $\times$ 587 mm $\times$ 550 mm	762 mm $\times$ 528 mm $\times$ 493 mm
	Woofer: 192 mm $\times$ 388 mm $\times$ 111 mm	
Weight	53.0 kg	39.0 kg
	Woofer: 2.0 kg	
Accessories	Remote control unit $\times$ 1 (RM-C1502), Woofer $\times$ 1 AA/R6 dry cell battery $\times$ 2	

We may change the design and specifications without notice.
Pictures displayed on the screen using this TV's ZOOM functions should not be shown for any commercial or demonstration purpose in public places (cafes, hotels, etc.) without the consent of the owners of copyright of the original picture sources, as this would be an infringement of copyright.

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